

IN THE CLAIMS

1. (original) A sieve comprising:
  - a base;
  - a sieve screen frame mounted on the base;
  - a sieve screen mounted in the frame;
  - a vibrator arranged to vibrate the frame relative to the base;
  - a guide member above the sieve screen for controlling flow of material to be sieved over the sieve screen; and
  - an excitation source arranged to vibrate the guide member so as to induce a deblinding excitation of the sieve screen.
2. (original) A sieve in accordance with Claim 1, wherein the excitation source is attached to the guide member.
3. (currently amended) A sieve in accordance with either of Claim 1 or Claim 2, wherein the sieve screen frame and sieve screen are circular.
4. (original) A sieve in accordance with Claim 2, wherein the guide member takes the form of a spiral-like curve having a progressively increasing radius of curvature and extending through at least 270°.
5. (currently amended) A sieve in accordance with either Claim 1 or Claim 2, wherein the sieve screen frame and sieve screen are rectangular.
6. (original) A sieve in accordance with Claim 5, wherein the guide member is a single zig-zag-shaped rod having at least one aperture above the sieve screen through which material to be sieved can flow.
7. (currently amended) A sieve in accordance with any of Claims

~~1 to 5~~Claim 1, having a plurality of said guide members, each |  
having a respective said excitation source.

8. (currently amended) A sieve in accordance with ~~any preceding~~ |  
~~claim~~Claim 1, wherein the guide member is secured to the top |  
surface of the sieve screen.

9. (currently amended) A sieve in accordance with ~~any of Claims~~ |  
~~1 to 7~~Claim 1, wherein the guide member is in contact with the |  
top surface of the sieve screen.

10. (currently amended) A sieve in accordance with ~~any of Claims~~ |  
~~1 to 7~~Claim 1 particularly for sieving a liquid material, wherein |  
the guide member is spaced from the top surface of the sieve |  
screen and the deblinding excitation is transmitted to the sieve |  
screen through said liquid material.

11. (original) A sieve comprising:

a base;

a circular sieve screen frame mounted on the base;

a circular sieve screen mounted in the frame and having a  
centre;

a vibrator arranged to vibrate the frame relative to the  
base;

a resonator secured to or contacting the sieve screen,  
wherein the resonator takes the form of a spiral-like  
curve starting at or near the centre of the sieve  
screen, the curve having a progressively increasing  
radius of curvature and extending through at least 270°  
about said centre; and

an excitation source arranged to excite the resonator, to  
induce a deblinding excitation of the sieve screen.

12. (currently amended) A sieve in accordance with ~~any preceding~~ |  
~~claim~~Claim 1, wherein the excitation source comprises a pneumatic |  
actuator.

13. (currently amended) A sieve in accordance with ~~any of Claims 1 to 11~~ Claim 1, wherein the excitation source comprises an electrically powered actuator.

14. (currently amended) A sieve in accordance with ~~any preceding claim~~ Claim 1, wherein the excitation source provides ultrasonic excitation.

15. (original) A sieve comprising:

- a base;
- a sieve screen frame mounted on the base;
- a separator screen mounted in the frame;
- a vibrator arranged to vibrate the frame relative to the base;
- a resonator secured to or contacting the separator screen, wherein the resonator comprises a rod extending between spaced ends;
- an ultrasonic transducer at one of said spaced ends to excite the resonator rod at a resonant frequency having a predetermined wavelength along the length of the resonator rod;
- said resonator rod having at least a portion of its length which bends smoothly in a single direction of curvature through at least 90°, and
- the rod having a minimum radius of curvature at any point between said spaced ends which is greater than said predetermined wavelength.

16. (original) A sieve in accordance with Claim 15, wherein said minimum radius of curvature is greater than 50 mm.

17. (original) A sieve in accordance with Claim 15, wherein said predetermined wavelength is between 25 mm and 35 mm.

18. (currently amended) A sieve in accordance with ~~any of Claims~~

~~15 to 17~~Claim 15, wherein said rod bends in said single direction of curvature, over at least a portion thereof, by at least 180°.

19. (currently amended) A sieve in accordance with ~~any preceding claim~~Claim 15, wherein the sieve further comprises a support frame beneath the sieve screen.

20. (original) A sieve in accordance with Claim 19, wherein said excitation source comprises a transducer, resonator, and a support device, which supports the excitation source on the support frame and also acts to minimise the excitation of said support frame.

21. (original) A sieve in accordance with Claim 20, wherein an additional support device for the resonator is provided at a node and is attached to the resonator such that excitation of the support frame is minimized.

22. (currently amended) A sieve in accordance with ~~any of Claims 15 to 21~~Claim 15 including a plurality of said resonator rods on a single said screen, each of said plurality of resonator rods having a respective ultrasonic transducer at one end of the rod.

23. (currently amended) A sieve in accordance with ~~any of Claims 15 to 22~~Claim 15, wherein the curvature of the rod varies over the length of the rod between the ends.

24. (currently amended) A sieve in accordance with ~~any of Claims 1 to 14~~Claim 1, wherein the excitation source is not attached to the guide member or resonator and has a striking surface arranged to strike the guide member or resonator when the excitation source is energized.

25. (currently amended) A sieve in accordance with ~~any of Claims 1 to 14~~Claim 1, wherein the excitation source is not attached to the guide member or resonator and has a contact surface arranged

to apply pressure to the guide member or resonator to communicate vibrations to the guide member or resonator when the excitation source is energized.

26. (currently amended) A sieve in accordance with ~~any of Claims 1 to 14 and 24 or 26~~ Claim 1, wherein the excitation source is parasitic, depending on the vibration of the frame produced by said vibrator.

27. (canceled).